

SN-101091, 938

Cop/c

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of

U.S. Patent No. : 6,730,367 B2  
Issued : May 4, 2004  
Title : ATOMIC LAYER DEPOSITION METHOD WITH POINT OF USE  
GENERATED REACTIVE GAS SPECIES  
Docket No. : MIO 0092 PA

CERTIFICATE OF MAILING  
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 15, 2004.

Attn: William A. Jordan

Reg. No. 42,695

**Certificate  
SEP 21 2004  
of Correction**

**Certificate of Corrections Branch**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

REQUEST FOR CERTIFICATE OF CORRECTION FOR PTO MISTAKE  
UNDER 35 U.S.C. 254 and 37 C.F.R. 1.322

In the matter of U.S. Patent No. 6,730,367 B2, it is respectfully requested that a Certificate of Correction be issued to cover the following errors which occurred in the printing of the patent.

(57)

ABSTRACT

"A method for atomic layer deposition providing a dispenser unit used to prevent mixing of a precursor gas and an input gas is disclosed. From the dispenser unit a flow of the input gas is provided over a surface of the workpiece wherein a beam of the electromagnetic radiation is directed into the input gas in close proximity to the surface of the workpiece, but spaced a finite distance therefrom. The input gas is dissociated by the beam producing a high flux **paint** of use generated reactive gas species that reacts with a surface reactant formed on the surface of the workpiece by a direct flow of the precursor gas flown from the dispensing unit. The surface reactant and reactive gas species react to form a desired monolayer of a material on the surface of the workpiece." should read

--A method for atomic layer deposition providing a dispenser unit used to prevent mixing of a precursor gas and an input gas is disclosed. From the dispenser unit a flow of the input gas is provided over a surface of the workpiece wherein a beam of the electromagnetic radiation is directed into the input gas in close proximity to the surface of the workpiece, but spaced a finite distance therefrom. The input gas is dissociated by the beam

producing a high flux **point** of use generated reactive gas species that reacts with a surface reactant formed on the surface of the workpiece by a direct flow of the precursor gas flown from the dispensing unit. The surface reactant and reactive gas species react to form a desired monolayer of a material on the surface of the workpiece.--;

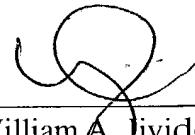
Col. 10, line 51, "precursor;" should read --precursor **gas**--;

Col. 11, line 3, "O<sub>2</sub>, O<sub>3</sub>, CCl<sub>4</sub>, BCl<sub>3</sub>, CDF<sub>3</sub>, CF<sub>4</sub>, CFCl<sub>3</sub>, F<sub>2</sub>CO, (FCO)<sub>2</sub>," should read --O<sub>2</sub>, O<sub>3</sub>, CCl<sub>4</sub>, BCl<sub>3</sub>, CDF<sub>3</sub>, CF<sub>4</sub>, **SiH<sub>4</sub>**, CFCl<sub>3</sub>, F<sub>2</sub>CO, (FCO)<sub>2</sub>--.

**REMARKS**

It is respectfully requested that a Certificate of Correction be issued for the above-identified patent. All of the above errors occurred during the printing of the patent and, therefore, no fee is due. Two (2) copies of the required Certificate of Correction Form PTO/SB/44 are enclosed.

Respectfully submitted,  
DINSMORE & SHOHL LLP

By   
\_\_\_\_\_  
William A. Jividen  
Registration No. 42,695

One Dayton Centre  
One South Main St., Suite 1300  
Dayton, Ohio 45402-2023  
Telephone: (937) 449-6400  
Facsimile: (937) 449-6405

WAJ/amm  
Encl.

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

PATENT NO. : 6,730,367 B2

DATED : May 4, 2004

INVENTOR(S) : Sandhu

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(57)

**ABSTRACT**

"A method for atomic layer deposition providing a dispenser unit used to prevent mixing of a precursor gas and an input gas is disclosed. From the dispenser unit a flow of the input gas is provided over a surface of the workpiece wherein a beam of the electromagnetic radiation is directed into the input gas in close proximity to the surface of the workpiece, but spaced a finite distance therefrom. The input gas is dissociated by the beam producing a high flux point of use generated reactive gas species that reacts with a surface reactant formed on the surface of the workpiece by a direct flow of the precursor gas flown from the dispensing unit. The surface reactant and reactive gas species react to form a desired monolayer of a material on the surface of the workpiece." should read

--A method for atomic layer deposition providing a dispenser unit used to prevent mixing of a precursor gas and an input gas is disclosed. From the dispenser unit a flow of the input gas is provided over a surface of the workpiece wherein a beam of the electromagnetic radiation is directed into the input gas in close proximity to the surface of the workpiece, but spaced a finite distance therefrom. The input gas is dissociated by the beam producing a high flux point of use generated reactive gas species that reacts with a surface reactant formed on the surface of the workpiece by a direct flow of the precursor gas flown from the dispensing unit. The surface reactant and reactive gas species react to form a desired monolayer of a material on the surface of the workpiece.--;

Col. 10, line 51, "precursor," should read --precursor gas--;

Col. 11, line 3, "O<sub>2</sub>, O<sub>3</sub>, CCl<sub>4</sub>, BCl<sub>3</sub>, CDF<sub>3</sub>, CF<sub>4</sub>, CFCl<sub>3</sub>, F<sub>2</sub>CO, (FCO)<sub>2</sub>," should read --O<sub>2</sub>, O<sub>3</sub>, CCl<sub>4</sub>, BCl<sub>3</sub>, CDF<sub>3</sub>, CF<sub>4</sub>, SiH<sub>4</sub>, CFCl<sub>3</sub>, F<sub>2</sub>CO, (FCO)<sub>2</sub>--.

MAILING ADDRESS OF SENDER:

Dinsmore & Shohl LLP

One Dayton Centre

One South Main Street, Suite 1300

Dayton, Ohio 45402-2023

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PATENT NO. 6,730,367 B2

No. of additional copies

 Sheet 1 of 1